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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,633	09/22/2003	Christopher Cave	I-2-0390.1US	1103

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EXAMINER	
LAM, DUNG LE	
ART UNIT	**PAPER NUMBER**
2687	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/667,633	CAVE ET AL.	
	Examiner	Art Unit	
	Dung Lam	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7, 8, and 33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7,8 and 33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ___.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 7 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the corresponding claims 1, 2, 3 and 4 of Application No. 10/626165 (U.S. Publication No. 2005/0014533). Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claim is broader than the copending claims, the pending claim encompasses all the limitations of the claimed limitations from the copending application No. 10/626165.

3. Claim 33 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the corresponding claims 35, 36, 37 and 38 of the copending Application No. 10/626165 (U.S. Publication No. 2005/0014533). Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claims are broader than the patented claims, thus the pending claim encompasses all the limitations of the claimed limitations from the copending application No. 10/626165.

Response to Arguments

4. Applicant's arguments with respect to claims 7, 8, and 33 filed on 10/26/05 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Information Disclosure Statement

5. The references listed in the Information Disclosure Statement submitted on November 07, 2005 have been considered by the examiner (see attached PTO-1449 form).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 8 is rejected under 35 U.S.C. 112, second paragraph. It is not clear how the following step is achieved in the written specification, "**determining a relative location of the second Node B with respect to the beamforming antenna of the UE** based on information related to the detected sounding pulse whereby the continuing of the UE's communication via the second Node B includes operating the mobile unit's antenna to form a communication beam toward the second Node B".

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 7, 8 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Anderson et al.** (US Patent No. 6088590) in view of **Bark et al.** (US Patent No. 6445917) further in view of **Velazquez** (US Patent No. 6593880)

8. Regarding **claim 7**, Anderson teaches a Radio Access Network having a plurality of Nobe B base stations (BS see Fig. 4), each Node B base station having a selectively operable beamforming antenna (Col. 11, ln 62-66) and providing wireless communication services for mobile User Equipments (Ues) in a respective geographic coverage area that may or may not overlap with the geographic coverage areas of other of the base stations and a Radio Network Controller (RNC) connected to the Node B base stations (BSC), a method of handoff a wireless communication with a UE conducted via a first Node B base station to a second base station comprising:

detecting a handover trigger event during the UEs wireless communication via the first Node B base station (Col. 15, lines 53-55);

transmitting an omnidirectional sounding pulse from the UE (Col. 12, ln 12-14);

communicating information related to the detected omnidirectional (Col. 12, In 12-14) sounding pulse to the RNC by each base station detecting the sounding pulse ; selecting by the RNC the second base station from the base stations that detected the sounding pulse based on the communicated information (Col. 16, lines 64-68); and continuing the mobile unit's wireless communication via the selected second base station (Col. 17, lines 15-20).

However, Anderson fails to specifically teach that the network is a UMTS system. In an analogous art, **Bark** teaches a UMTS Terrestrial Radio Access Network (UTRAN) (**24** see Figure 1A, Col. 5, lines 44-45, and 3G standards) each base station is a Node B (**28**), the interface is a Radio Network Controller (RNC) **26** and the second base station selection is performed by the RNC by selecting a second Node B (col. 8, lines 50-55); UMTS or 3G system is known in the art and is gaining increasing popularity for providing higher speed data transfer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the handover method in the UMTS system to provide users higher speed services.

The combination also fails to specifically teach the step of determining a relative location of the UE and directs the beam toward the UE to encompass the UE's relative location. In an analogous art, **Velazquez** teaches a step of determining a relative location of the UE with respect to the beamforming antenna of the selected second Node B based on information related to the detected sounding pulse whereby the continuing of the UE's communication via the second Node B includes operating the selected Node B's antenna to form a communication beam for at least one dedicated

channel covering a selected portion of the coverage area serviced by the second Node B that encompasses the determined relative location of the UE (Col. 7, ln 25-68, Col. 8, ln 25-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Anderson and Bark's teaching of the handover method in the UMTS system and Velazquez's teaching of locating the UE and directing the beam toward the UE to reduce the system's interference.

9. Regarding **claim 8**, Anderson teaches a Radio Access Network having a plurality of Nobe B base stations (BS see Fig. 4), each Node B base station having a selectively operable beamforming antenna (Col. 11, ln 62-66) and providing wireless communication services for mobile User Equipments (Ues) in a respective geographic coverage area that may or may not overlap with the geographic coverage areas of other of the base stations and a Radio Network Controller (RNC) connected to the Node B base stations (BSC), a method of handoff a wireless communication with a UE conducted via a first Node B base station to a second base station comprising:

detecting a handover trigger event during the UEs wireless communication via the first Node B base station (Col. 15, lines 53-55);

transmitting an omnidirectional sounding pulse from the UE (Col. 12, ln 12-14);

communicating information related to the detected omnidirectional (Col. 12, ln 12-14) sounding pulse to the RNC by each base station detecting the sounding pulse ; selecting by the RNC the second base station from the base stations that detected the sounding pulse based on the communicated information (Col. 16, lines 64-68); and

continuing the mobile unit's wireless communication via the selected second base station (Col. 17, lines 15-20).

However, Anderson fails to specifically teach that the network is a UMTS system. In an analogous art, **Bark** teaches a UMTS Terrestrial Radio Access Network (UTRAN) (**24** see Figure 1A, Col. 5, lines 44-45, and 3G standards) each base station is a Node B (**28**), the interface is a Radio Network Controller (RNC) **26** and the second base station selection is performed by the RNC by selecting a second Node B (col. 8, lines 50-55); UMTS or 3G system is known in the art and is gaining increasing popularity for providing higher speed data transfer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the handover method in the UMTS system to provide users higher speed services.

The combination also fails to specifically teach that the UE has a selectively beamforming antenna and the step of determining a relative location of Node B and directs the beam toward the Node B to form a communication beam.

In analogous art, Velazquez teaches that the UE has a selectively beamforming antenna (col. 5, ln 25-28) and the step of determining a relative location of the second Node B (col. 7 ln. 55-60) with respect to the beamforming antenna of the mobile unit based on information related to the detected sounding pulse whereby the continuing of the UE's communication via the second Node B includes operating the mobile unit's antenna to form a communication beam toward the second Node B (Col. 6, ln. 65 - Col. 7 ln 15, Col. 8, ln 25-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Anderson and Bark's teaching of the

handover method in the UMTS system and Velazquez's teaching of locating the UE and directing the beam toward the desired base station to reduce the system's interference as suggested by Velazquez (see Col. 5 ln. 65- col. 7 ln. 5).

10. Regarding **claim 33**, Anderson teaches a Radio Access Network having a plurality of Nobe B base stations (BS see Fig. 4), each Node B base station having a selectively operable beamforming antenna (Col. 11, ln 62-66), a method of handoff a wireless communication with a UE conducted via a first Node B base station to a second base station comprising:

detecting a handover trigger event during the UEs wireless communication via the first Node B base station (Col. 15, lines 53-55);

transmitting an omnidirectional sounding pulse from the UE (Col. 12, ln 12-14);

directing a communication beam from Node B base stations detecting the sounding pulse towards the mobile UE (Col. 7, ln 35-40, ln 64-67);

selecting a handover Node B base station from Node B base stations that detected the sounding pulse based on the communicated information received by the mobile UE (Col. 16, lines 64-68); and continuing the mobile unit's wireless communication via the selected second base station (Col. 17, lines 15-20).

However, Anderson fails to specifically teach that the network is a UMTS system. In an analogous art, **Bark** teaches a UMTS Terrestrial Radio Access Network (UTRAN) (**24** see Figure 1A, Col. 5, lines 44-45, and 3G standards) each base station is a Node B (**28**), the interface is a Radio Network Controller (RNC) **26** and the second base station selection is performed by the RNC by selecting a second Node B (col. 8, lines 50-55);

UMTS or 3G system is known in the art and is gaining increasing popularity for providing higher speed data transfer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the handover method in the UMTS system to provide users higher speed services.

The combination also fails to specifically teach the step of determining a relative location of the UE and directs the beam toward the UE to encompass the UE's relative location. In an analogous art, Velazquez teaches a determining a relative location of the UE with respect to the beamforming antenna of each sounding pulse detecting Node B based on information related to the detected sounding pulse whereby the directing of a communication beam includes operating the respective Node Bs' antennas to form communication beams that each cover a selected portion of the coverage area serviced by the respective Node B that encompasses the relative location of the UE (Col. 7, ln 25-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Anderson and Bark's teaching of the handover method in the UMTS system and Velazquez's teaching of locating the UE and directing the beam toward the UE to reduce the system's interference.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL
1/09/6

ELISEO RAMOS-FELICIANO
PATENT EXAMINER